

ABSTRACT OF THE DISCLOSURE

A toilet bowl having a venting system for directing odious air from the toilet bowl to the sewer system. The system includes a toilet bowl having a discharge outlet that is connected to a sewer line, a chamber defined within the toilet bowl, an exhaust hose disposed within the chamber and in communication with the discharge outlet, and a housing connected to the exhaust hose. A gate is hingedly fitted on a frame within the housing, the gate is rotated to an open position and a closed position depending on the operative position of the system. In the open position, the ventilation system is activated causing air flow to be directed through a vent opening in the toilet bowl to the sewer line. An electrically operated exhaust fan is positioned within the housing. A surface end is disposed between the fan and the gate. The surface end having a magnetic field produced by an electric current. When activated, the electromagnetic action between the surface end and the gate pulls the gate to the closed position, forming an airtight seal between the gate and the surface end to prevent gas flow in the direction from the sewer line. Activating the exhaust fan acts as a demagnetizing force between the gate and the surface end. Air flow from the fan is directed towards the gate, causing the gate to rotate in the open position. When the exhaust fan is deactivated, air flow ceases allowing the gate to return to the closed position. An electronic control unit is further disposed in the upper portion of the chamber and electrically connected to the exhaust fan and surface end. The control unit is further connected to a pressure sensor attached to the upper surface of a lip of the toilet bowl, so that lowering the toilet seat of the toilet bowl onto the lip causes contact between the toilet seat and the pressure sensor. When the weight of a person is placed on the toilet seat, the pressure sensor signals the control unit, causing the control unit to activate the exhaust fan and demagnetize the surface end. When the exhaust fan is activated, air flow from the fan urges the gate to an opened position directing air flow from the toilet bowl, through the vent opening, and to the sewer line. When the weight of the person is no longer resting on the toilet seat, the pressure sensor signals the control unit, causing the control unit to de-activate the exhaust fan and send an electric current to

the surface end. When the exhaust fan is de-activated, air flow from the fan ceases, allowing the gate to return to the closed position.